

Basketball Game Statistics Instruction

Stojanovic Mihajlo
(stojanovicmihajlo97@gmail.com)

Vasic Danilo
(danil154@hotmail.com)

Abstract

The program is intended for live tracking of player statistics at a basketball game. Initially the user enters the required team information or selects the already offered team. Based on what happens on the field, players are noted for their performance (points, assists, steals, turnovers, rebounds, fouls, blocks, minutes played, shooting percent). At the end of the game, a pdf file that stores tables with detailed player performance is generated.

You can find the program at the following [link](#).

Contents

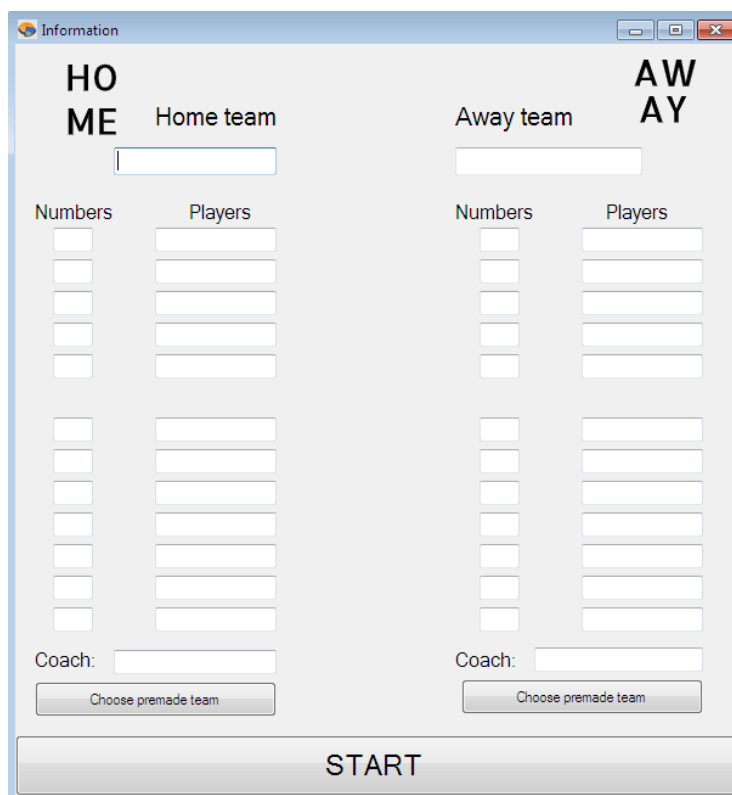
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1 Running the program

- Download and extract GameStatistics.rar from the link in the description.
- Download and install Edraw PDF Viewer Component from the following [link](#) (even without this step the program will work fine, you just won't be able to view the help directly from the program).
- Run GameStatistics (Application file) from GameStatistics\GameStatistics\bin\Debug

2 Entering teams information

When you start the program the next window will be shown.



The screenshot shows a window titled "Information" with a light blue border. It is divided into two main sections for "HOME" (Home team) and "AWAY" (Away team). Each section has a header area with "HOME" and "Home team" (or "AWAY" and "Away team") and a text input field. Below this, there are two columns: "Numbers" and "Players". Each column has five input fields. At the bottom of each section is a "Coach:" label followed by an input field and a "Choose premade team" button. A large "START" button is centered at the bottom of the window.

Figure 1: A window for entering teams information

The names of the teams, players, coaches and player numbers should be entered in the fields. First five player fields, coach and team names must be filled in. The fields must be completed in sequence without skipping. Also, it is not possible to enter two players on the same team with the same number. If your team is on the list of offered teams, it is not necessary to enter information manually. More about that below.

2.1 Choosing already offered team

After clicking the button CHOOSE PREMADE TEAM, the following window will open with the list of offered teams.

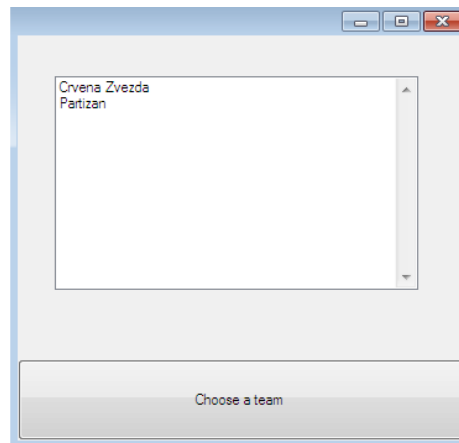


Figure 2: Window with the list of offered teams

After selecting a team and clicking the button CHOOSE A TEAM, the following window will open with the list of players that perform for the selected team (in this example Partizan).

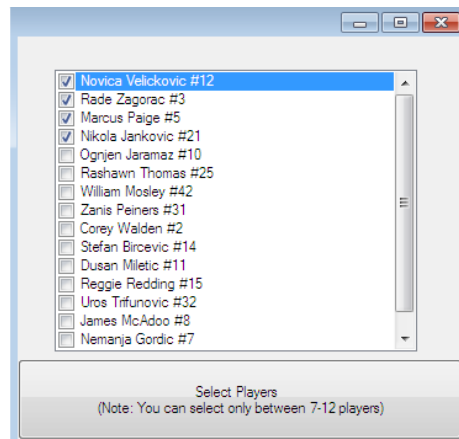


Figure 3: Window with the list of players

Select the players you want to play in the match and click SELECT PLAYERS button. After completing the input for both teams click on the START button. The following figure shows a window with complete data entry.

The screenshot shows a software window titled "Information" with a light blue border. Inside, there are two main sections: "Home team" on the left and "Away team" on the right. Each section features a team logo at the top, a text box for the team name, and a list of players with their numbers in the left column and their names in the right column. Below the player lists, there is a "Coach:" label followed by a text box and a "Choose premade team" button. At the bottom of the window is a large, light gray button labeled "START".

Home team		Away team	
Numbers	Players	Numbers	Players
12	Novica Velickovic	2	Kevin Punter
3	Rade Zagorac	4	Lorenzo Brown
5	Marcus Paige	5	Stratos Perperoglou
21	Nikola Jankovic	7	Dejan Davidovac
10	Ognjen Jaramaz	10	Branko Lazic
25	Rashawn Thomas	12	Billy Baron
2	Corey Walden	13	Ognjen Dobric
14	Stefan Bircevic	15	James Gist
32	Uros Trifunovic	22	Charles Jenkins
8	James McAdoo	28	Borisa Simanic
7	Nemanja Gordic	32	Nikola Jovanovic
0	Braian Angola	50	Michael Ojo

Coach: Andrea Trinchieri

Coach: Dragan Sakota

START

Figure 4: Completed input

3 Tracking match live

After clicking on START button, a window for tracking game live will be shown. The following figure shows a window for teams that were previously selected as in figure 4.



Figure 5: Window for tracking game live

First five players on the left and right side are on the court. Below the players is a button for substitution. In the center there is a court divided by zones with two buttons in each. Above the court is a field that shows which player you want to enter the command. At the top is the current match result and time manipulating section. Below the court there are buttons that indicate the command to be entered. At the bottom is a box for showing commands that have been entered. More on all of this below.

3.1 Zones on the court

Court is divided by zones with two buttons in each. Green button indicates a score, and red button indicates miss from the corresponding zone. The following figure shows how the court is divided by zones.

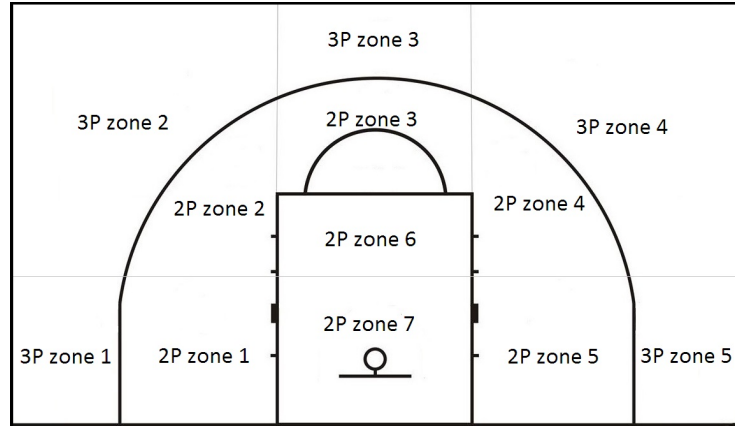


Figure 6: Zones

3.2 Enterable commands

As we already mentioned, below the court there are buttons that indicate the command to be entered. Command can be:

- DEFF REB - deffensive rebound
- OFF REB - offensive rebound
- FOUL CM - committed foul
- FOUL RV - received foul
- ASSIST - pass to a teammate that leads directly to score
- STEAL - defensive player steals the ball
- TURNOVER - player loses possession of the ball
- FT MADE - free throw made
- FT ATTEMPT - free throw attempted
- BLOCK AG - block against(player received the block)
- BLOCK FV - block in favor(player block the shoot)

3.3 Manipulating with time

At the beginning time is stopped. After clicking the PLAY button, time will start ticking. If you want to stop time click on STOP button.

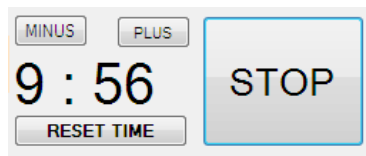


Figure 7: Time ticking

- PLUS - increases the current time by one second
- MINUS - reduces the current time by one second
- RESET TIME - resets the time to 10:00

3.4 Making substitution

If you want to make a substitution click on the button SUBSTITUTION below the players. Then select the player who enters the court, and player who leaves the court. After that click the button CONFIRM SUBSTITUTION.



Figure 8: Substitution

3.5 Undo command

While working with the program, wrong command that did not happend on the court can be entered. In that case we want to undo the command. Two buttons in the top menu are used for this purpose:

- UNDO (UP TO 5 COMMANDS)
After clicking this button a window with the last entered command will appear. After confirmation the last command is successfully returned (you will get a message in the box at the bottom of the window). Note that a maximum of five commands can be returned.
- UNDO (RANDOM COMMAND)
If you want to undo random command (command does not have to be in the last five commands), then you should use this button. First you need to choose the player you want to undo the command (the player will be displayed in the field above the court). After you select a player, click on the button UNDO(RANDOM COMMAND). A window like the folowing figure will open.




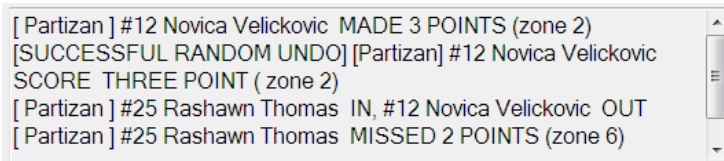
Figure 9: We choose the player Rade Zagorac (number 3) from team Partizan

After this window opens, you have to choose action. If the action is TwoP (two point shoot) or ThreeP (three point shoot) then you have to choose a zone and shooting result (score/missed). In case the action is FreeT (free throw shoot) then you only have to select shooting result. Otherwise, no need to select zone and shooting result. After selecting the required command, click CONFIRM UNDO COMMAND button. If the selected command did not hapend, you will get a message in the box at the bottom of the window about failed undo attempt. Otherwise, you will receive a successful undo message.

3.6 Printing commands

We have already mentioned several times the box at the bottom of the window. This box is intended to print commands that have occurred (the result of undo command, players substitution, player actions). There are several pattern for showing, depending on the command.

- Player action:
`[Team] #Number Players_name Command`
- Undo command:
`[SUCCESSFUL UNDO][Team] #Number Players_name Command`
- Players substitution:
`[Team] #Number1 Player1_name IN, #Number2 Player2_name OUT`



```
[ Partizan ] #12 Novica Velickovic MADE 3 POINTS (zone 2)
[SUCCESSFUL RANDOM UNDO][Partizan] #12 Novica Velickovic
SCORE THREE POINT ( zone 2)
[ Partizan ] #25 Rashawn Thomas IN, #12 Novica Velickovic OUT
[ Partizan ] #25 Rashawn Thomas MISSED 2 POINTS (zone 6)
```

Figure 10: An example of printing several commands

3.7 End of the match

When the match is over click on the button END OF THE MATCH in the top menu. By clicking on this button, a pdf file that stores team statistics and detailed player performance is generated and it opens automatically. The name of pdf file contains the date of the match and both team names (for example `[22.3.2020]Partizan[VS]Crvena.Zvezda.pdf`). You can find this file in the directory: `GameStatistics\GameStatistics\bin\Debug`.

3.8 Help directly from the program

If you want to be able to seek help directly from the program, you need to download and install Edraw PDF Viewer Component from the following [link](#). Important note: even without this step the program will work fine, you just won't be able to view the help directly from the program. As an alternative, we recommend you to search file `Instruction.pdf` in directory `GameStatistics\GameStatistics\bin\Debug`.

4 Conclusion

We recommend that the program users be present live on the match, not via TV streams. The reason is simple, you will have a much better view of what is happening on the court. Also, we encourage you to work with a colleague, to avoid missing out happenings on the court while you enter the command.